

### Abstract

An imaging system for motor vehicles has a holographic screen (13), which scatters incident narrow band light at a predetermined solid angle, and a modulator (14) and a lens (15) to project images on the holographic screen (13). A holographic, transparent ray uniter (11), which allows broad band ambient light to pass through essentially unimpeded, guides the narrow band light, coming from the holographic screen (13), to the viewer (17), whereby a virtual image (16) is produced at the viewing location by means of an imaging function. Images from the outside of the motor vehicle are shot by means of a camera system and are faded as virtual images into the windshield (12) of the motor vehicle in order to enable there additionally a view to the rear or to the side.

(Figure 1)